We claim:

1. An alkyd resin composition, comprising:

(I) an acrylate-functional alkyd resin; and

(II) from about 100 ppm to about 2000 ppm, based on the acrylate-functional alkyd resin, of a monofunctional mercaptan.

2. The alkyd resin composition of claim 1, wherein the monofunctional mercaptan comprises one or more of: isooctyl 3-mercaptopropionate, n-dodecyl mercaptan, t-dodecyl mercaptan, or n-butyl 3-mercaptopropionate.

3. The alkyd resin composition of claim 1, wherein the monofunctional mercaptan comprises isooctyl 3-mercaptopropionate.

4. The alkyd resin composition of claim 1, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) a carboxyl-functional alkyd resin, and

(ii) a glycidyl acrylate, wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

5. The alkyd resin composition of claim 1, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) about 85 to about 98 wt % of a carboxyl-functional alkyd resin; and

(ii) about 2 to about 15 wt % of a glycidyl acrylate, wherein the weight percents are based on the total weight of (i) and (ii), and wherein the glycidyl moiety of the glycidyl acrylate is the reactive

moiety and the reaction product contains terminal reactive acrylate moieties.

6. The alkyd resin composition of claim 5, wherein the monofunctional mercaptan comprises isooctyl 3-mercaptopropionate.

7. The alkyd resin composition of claim 4, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid; and

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil,

wherein the mole percents are based on the total moles of (a), (b), (c), (d), and (e).

8. The alkyd resin composition of claim 7, wherein the diol comprises neopentyl glycol; the polyol comprises one or more of trimethylolpropane or pentaerythritol; the polyacid comprises one or more of isophthalic acid or phthalic anhydride; and the naturally occurring oil or fatty acid comprises one or more of soybean oil, sunflower oil, or tall oil fatty acid.

9. The alkyd resin composition of claim 4, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid;

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil; and

(f) from about 2 to about 10 mole % of a sulfomonomer,

wherein the mole percents are based on the total moles of (a), (b), (c), (d), (e), and (f).

10. The storage-stable alkyd resin composition of claim 9, wherein the sulfomonomer comprises 5-sodiosulfoisophthalic acid.

11. The storage-stable alkyd resin composition of claim 4, wherein the glycidyl acrylate comprises glycidyl methacrylate.

12. The alkyd resin composition of claim 1, wherein the composition further comprises from about 10 to about 90 wt % of an alkyd resin lacking acrylate functionality, based on the total weight of the acrylate-functional alkyd resin and the alkyd resin lacking acrylate functionality.

13. The alkyd resin composition of claim 4, wherein the composition further comprises from about 10 to about 90 wt % of an alkyd resin lacking acrylate functionality, based on the total weight of the acrylate-functional alkyd resin and the alkyd resin lacking acrylate functionality.

14. An ambient oxidative-cure composition, comprising:

(a) an alkyd resin composition that includes

(I) an acrylate-functional alkyd resin, and

(II) from about 100 ppm to about 2000 ppm, based on the acrylate-functional alkyd resin;

(b) at least one drier; and

(c) a solvent selected from the group consisting of an organic solvent, water, and mixtures thereof.

15. The ambient oxidative-cure composition of claim 14, wherein the solvent comprises at least one organic solvent.

16. The ambient oxidative-cure composition of claim 14, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) a carboxyl-functional alkyd resin; and

(ii) a glycidyl acrylate,

wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

17. The ambient oxidative-cure composition of claim 14, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) about 85 to about 98 wt % of a carboxyl-functional alkyd resin; and

(ii) about 2 to about 15 wt % of the glycidyl acrylate, wherein the weight percents are based on the total weight of (i) and (ii), and wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

18. The ambient oxidative-cure composition of claim 14, wherein:

the storage-stable alkyd resin composition of (a) is present in an amount of from about 30 to about 98 wt %, based on the total composition;

the drier of (b) is present in an amount of from about 0.01 to about 5.0 wt % of metal, based on the total composition; and

the solvent of (c) is present in an amount of from about 1 to about 70 wt %, based on the total composition.

19. The ambient oxidative-cure composition of claim 16, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid; and

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil, wherein the mole percents are based on the total moles of (a), (b), (c), (d), and (e).

20. The ambient oxidative-cure composition of claim 19, wherein the diol comprises neopentyl glycol; the polyol comprises one or more of trimethylolpropane or pentaerythritol; the polyacid comprises one or more of isophthalic acid or phthalic anhydride; and the naturally occurring oil or fatty acid comprises one or more of soybean oil, sunflower oil, or tall oil fatty acid.

21. The ambient oxidative-cure composition of claim 16, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid;

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil; and

(f) from about 2 to about 10 mole % of a sulfomonomer, wherein the mole percents are based on the total moles of (a), (b), (c), (d), (e), and (f).

22. The ambient oxidative-cure composition of claim 21, wherein the sulfomonomer comprises 5-sodiosulfoisophthalic acid.

23. The ambient oxidative-cure composition of claim 16, wherein the glycidyl acrylate comprises glycidyl methacrylate.

24. The ambient oxidative-cure composition of claim 14, wherein the composition further comprises from about 10 to about 90 wt % of an alkyd resin lacking acrylate functionality, based on the total weight of the acrylate-functional alkyd resin and the alkyd resin lacking acrylate functionality.

25. The ambient oxidative-cure composition of claim 16, wherein the composition further comprises from about 10 to about 90 wt % of an alkyd resin lacking acrylate functionality, based on the total weight of the acrylate-functional alkyd resin and the alkyd resin lacking acrylate functionality.

26. The ambient oxidative-cure composition of claim 14, further comprising a surfactant.

27. The ambient oxidative-cure composition of claim 14, further comprising an amine.

28. The ambient oxidative-cure composition of claim 14, further comprising one or more of: a flow control agent, an extender, a plasticizer, a flatting agent, a pigment wetting agent, a pigment dispersing agent, an ultraviolet light absorber, an ultraviolet light stabilizer, a tinting pigment, a colorant, a defoaming agent, an antifoaming agent, an anti-settling agent, an anti-sag agent, a bodying agent, an anti-skinning agent, an anti-flooding agent, an anti-floating agent, or a corrosion inhibitor.

29. A method of improving the storage stability of an acrylate-functional alkyd resin composition, comprising adding to the resin composition from about 100 ppm to about 2000 ppm, based on the acrylate-functional alkyd resin, of a monofunctional mercaptan.

30. The method of claim 29, wherein the monofunctional mercaptan comprises one or more of: isooctyl 3-mercaptopropionate, n-dodecyl mercaptan, t-dodecyl mercaptan, or n-butyl 3-mercaptopropionate.

31. The method of claim 29, wherein the monofunctional mercaptan comprises isooctyl 3-mercaptopropionate.

32. The method of claim 29, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) a carboxyl-functional alkyd resin, and

(ii) a glycidyl acrylate, wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

33. The method of claim 29, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) about 85 to about 98 wt % of a carboxyl-functional alkyd resin; and

(ii) about 2 to about 15 wt % of a glycidyl acrylate, wherein the weight percents are based on the total weight of (i) and (ii), and wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

34. The method of claim 33, wherein the monofunctional mercaptan comprises isooctyl 3-mercaptopropionate.

35. The method of claim 32, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid; and

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil,

wherein the mole percents are based on the total moles of (a), (b), (c), (d), and (e).

36. The method of claim 35, wherein the diol comprises neopentyl glycol; the polyol comprises one or more of trimethylolpropane or pentaerythritol; the polyacid comprises one or more of isophthalic acid or phthalic anhydride; and the naturally occurring oil or fatty acid comprises one or more of soybean oil, sunflower oil, or tall oil fatty acid.

37. The method of claim 32, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid;

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil; and

(f) from about 2 to about 10 mole % of a sulfomonomer,

wherein the mole percents are based on the total moles of (a), (b), (c), (d), (e), and (f).

38. The method of claim 37, wherein the sulfomonomer comprises 5-sodiosulfoisophthalic acid.

39. The method of claim 32, wherein the glycidyl acrylate comprises glycidyl methacrylate.

40. A method of preparing an ambient oxidative-cure composition, comprising combining:

(a) an alkyd resin composition that includes

(I) an acrylate-functional alkyd resin, and

(II) from about 100 ppm to about 2000 ppm, based on the acrylate-functional alkyd resin;

(b) at least one drier; and

(c) a solvent selected from the group consisting of an organic solvent, water, and mixtures thereof.

41. The method of claim 40, wherein the solvent comprises at least one organic solvent.

42. The method of claim 40, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) a carboxyl-functional alkyd resin; and

(ii) a glycidyl acrylate,

wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

43. The method of claim 40, wherein the acrylate-functional alkyd resin comprises the reaction product of:

(i) about 85 to about 98 wt % of a carboxyl-functional alkyd resin; and

(ii) about 2 to about 15 wt % of the glycidyl acrylate, wherein the weight percents are based on the total weight of (i) and (ii), and wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties.

44. The method of claim 40, wherein:

the storage-stable alkyd resin composition of (a) is present in an amount of from about 30 to about 98 wt %, based on the total composition;

the drier of (b) is present in an amount of from about 0.01 to about 5.0 wt % of metal, based on the total composition; and

the solvent of (c) is present in an amount of from about 1 to about 70 wt %, based on the total composition.

45. A method of preparing a storage-stable acrylate-functional alkyd resin composition, comprising the steps of:

reacting (i) a carboxyl-functional alkyd resin, and (ii) a glycidyl acrylate, wherein the glycidyl moiety of the glycidyl acrylate is the reactive moiety and the reaction product contains terminal reactive acrylate moieties, to obtain an acrylate-functional alkyd resin; and

adding to the acrylate-functional alkyd resin:

a) at least one drier,

b) a solvent selected from the group consisting of an organic solvent, water, and mixtures thereof, and

c) from about 100 ppm to about 2000 ppm, based on the acrylate-functional alkyd resin, of a monofunctional

mercaptan, to obtain the storage-stable acrylate-functional alkyd resin composition.

46. The method of claim 45, wherein the monofunctional mercaptan comprises one or more of: isooctyl 3-mercaptopropionate, n-dodecyl mercaptan, t-dodecyl mercaptan, or n-butyl 3-mercaptopropionate.

47. The method of claim 45, wherein the monofunctional mercaptan comprises isooctyl 3-mercaptopropionate.

48. The method of claim 45, wherein the carboxyl-functional alkyd resin is provided in an amount from about 85 to about 98 wt % of a carboxyl-functional alkyd resin; and the glycidyl acrylate is provided in an amount from about 2 to about 15 wt %, wherein the weight percents are based on the total weight of (i) and (ii).

49. The method of claim 45, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid; and

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil,

wherein the mole percents are based on the total moles of (a), (b), (c), (d), and (e).

50. The method of claim 49, wherein the diol comprises neopentyl glycol; the polyol comprises one or more of trimethylolpropane or pentaerythritol; the polyacid comprises one or more of isophthalic acid or phthalic anhydride; and the naturally occurring oil or fatty acid comprises one or more of soybean oil, sunflower oil, or tall oil fatty acid.

51. The method of claim 45, wherein the carboxyl-functional alkyd resin comprises the reaction product of:

(a) from 0 to about 30 mole % of a diol;

(b) from about 10 to about 40 mole % of a polyol;

(c) from about 20 to about 40 mole % of a polyacid;

(d) from 0 to about 10 mole % of a monofunctional acid;

(e) from about 10 to about 60 mole % of a fatty acid, a fatty ester, or a naturally occurring oil; and

(f) from about 2 to about 10 mole % of a sulfomonomer,

wherein the mole percents are based on the total moles of (a), (b), (c), (d), (e), and (f).

52. The method of claim 51, wherein the sulfomonomer comprises 5-sodiosulfoisophthalic acid.

53. The method of claim 45, wherein the glycidyl acrylate comprises glycidyl methacrylate.